

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

Draft

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: East Kentucky Power Cooperative, Inc.
Mailing Address: P.O. Box 707, Winchester, Kentucky 40392-0707

Source Name: John Sherman Cooper Power Station
Mailing Address: State Highway 1247 South
Burnside, Kentucky 42519

Source Location: State Highway 1247 South, Burnside, Kentucky

Permit Number: V-05-082
Source A. I. #: 3808
Activity #: APE20040002
Review Type: Title V/Acid Rain/NOx Budget
Source ID #: 21-199-00005

Regional Office: London Regional Office
875 S. Main Street
London, Kentucky 40741

County: Pulaski

**Application
Complete Date:** September 27, 2004
Issuance Date:
Revision Date:
Expiration Date:

**John S. Lyons, Director
Division for Air Quality**

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Permit Type	Issuance Date	Expiration Date	Summary of Action
V-97-044 (Title V)	11/12/1999	11/12/2004	Initial Title V w/ Acid Rain Permit
A-98-012 (Acid Rain Permit)	03/05/1999 (Effective 01/01/2000)	12/31/2004	Final Phase II Acid Rain Permit
V-05-082 (Title V Renewal Permit w/ Acid Rain Permit and NO _x Budget Permit)	Renewal	Renewal	Title V Renewal Permit w/ Acid Rain Permit and NO _x Budget Permits

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify an affected facility without first having submitted a complete application and receiving a permit for the planned activity from the Division, except as provided in this permit or in 401 KAR 52:020, Title V permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 01 (01) - Indirect Heat Exchanger (Unit 1)

Description:

Pulverized coal-fired, dry-bottom, wall-fired unit equipped with electrostatic precipitator and low NO_x burners

Number two fuel oil used for startup and flame stabilization

Maximum continuous rating: 1,080 mmBtu/hr

Construction commenced: 1965 (The electrostatic precipitator was installed in 1971, and it was rebuilt in 1989. The Low-NO_x burner was installed in 1993.)

APPLICABLE REGULATIONS:

401 KAR 61:015, *Existing Indirect Heat Exchangers*, applies to existing indirect heat exchangers with a capacity more than 250 mmBtu per hour and commenced before August 17, 1971.

401 KAR 52:060, Acid Rain Permits, incorporating by reference 40 CFR Parts 72 to 78, Federal Acid Rain provisions.

401 KAR 51:160, NO_x Requirements for Large Utility and Industrial Boilers, incorporating by reference 40 CFR 96.

40 CFR Part 75, Continuous Emissions Monitoring (CEM).

40 CFR 64, *Compliance Assurance Monitoring* (CAM).

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to 401 KAR 61:015, Section 4 (1), particulate emissions shall not exceed 0.23 lb/mmBtu based on a three-hour average.

b) Pursuant to 401 KAR 61:015, Section 4 (3), emissions shall not exceed 40 percent opacity with respect to particulate matter based on a six-minute average, except:

- (1) That, for cyclone or pulverized fired indirect heat exchangers, a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
- (2) For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

c) Pursuant to 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 3.3 lb/mmBtu based on a twenty-four-hour average.

Compliance Demonstration Method:

To provide assurance that the particulate and sulfur dioxide emission limits and the visible emission limitations are being met the permittee shall comply with the **4. Specific Monitoring Requirements** below.

3. Testing Requirements:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- a) Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. There may be short term exceedances during testing period required to establish the opacity level. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. In accordance with **4.b Specific Monitoring Requirements**, the permittee shall submit a schedule within six months from the date of issuance of this permit to conduct testing within one year following the issuance of this permit to establish the correlation between opacity and particulate emissions.
- b) If no additional stack tests are performed pursuant to **4.b Specific Monitoring Requirements**, the permittee shall conduct a performance test for particulate emissions by the start of the fourth year of this permit to demonstrate compliance with the applicable standard.
- c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 weekly, or more frequently if requested by the Division.

4. Specific Monitoring Requirements:

- a) Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate:
 - (1) Perform an inspection of the control equipment and make any necessary repairs based on the concurrent readout from the COM, or;
 - (2) Determine opacity using Reference Method 9 if emissions are visible, inspect the COM and/or the control equipment, and make any necessary repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 61:005, Section 3(6), to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed on October 13, 2005, opacity shall be used as an indicator of particulate matter emissions. Pursuant to 40 CFR Part 64.4(c)(1), testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level. Excluding exempted time periods:
 - (1) If any six-minute average opacity (averaged over a period of three hours) value exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.
 - (2) If five (5) percent or greater of COM data (data averaged over six-minute periods) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by **Section G(a)(17)** of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.
- c) Pursuant to 401 KAR 61:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A, and 401 KAR 52:020, Section 10, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxide, sulfur dioxide and either oxygen or carbon dioxide emissions. Excluding exempted time periods, if any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.
- d) Pursuant to 401 KAR 61:015, Section 6(1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.
- e) Pursuant to 401 KAR 61:015, Section 6(3) the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- f) Pursuant to 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.
- g) The permittee shall monitor the time between ignition and the time steady state operation of emission unit #1 is achieved.

5. Specific Record Keeping Requirements:

- a) In accordance with 401 KAR 61:005, Section 3(16)(f) and 61:015, Section 6, the owner or operator shall maintain a file of all information reported in the quarterly summaries, with the exception that records shall be maintained for a period of five (5) years.
- b) The permittee shall maintain records of:
 - (1) Each fuel analysis;
 - (2) The rate of fuel burned for each fuel type, on a daily basis;
 - (3) The heating value and ash content on a weekly basis;
 - (4) The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
 - (5) When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
 - (6) Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
 - (7) Results of all compliance tests; and
 - (8) Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level.
- c) The permittee shall record the voltage and amperage readings of the precipitator transformer/rectifier sets, once per shift. If the voltage and amperage readings are outside of normal range then corrective action shall be initiated, taking into account current operating conditions, type of fuel, severity of the situation, and system requirement for the unit. Records of voltage and amperage readings shall be maintained with long-term operational records for a period of five (5) years.
- d) The permittee shall keep visible observation records and Method 9 observations in a designated logbook. Records shall be maintained for five (5) years.
- e) The permittee shall record the time of ignition, the time steady state operation of emission unit #1 is achieved, and shall calculate and record the elapsed time between the two.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**6. Specific Reporting Requirements:**

- a) Pursuant to 401 KAR 61:005, Section 3 (16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.
 - (1) Owners or operators of facilities required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.
 - (2) For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format only.
 - (3) For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic format only.
 - (4) The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
- b) The permittee shall report the number of excursions (excluding exempted time periods) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter.
- c) In the event of start-up, the permittee shall report:
 - (1) The type of start-up (cold, warm, or hot);
 - (2) The reason why the start-up was determined to be cold, warm, or hot (or the conditions that dictated a cold, warm, or hot start-up);
 - (3) The elapsed time of (or duration of) the start-up;
 - (4) The manufacturer's recommended duration for that type of start-up or alternatively, typical, historical durations for that type of start-up based upon good engineering practices; and
 - (5) Whether or not the duration of the start-up exceeded the manufacturer's

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.

7. Specific Control Equipment Operating Conditions:

- a) The electrostatic precipitator shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or good operating practices.
- b) Records regarding the maintenance of the electrostatic precipitator shall be maintained.
- c) See **Section E - Control Equipment Conditions** for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 02 (02) - Indirect Heat Exchanger (Unit 2)

Description:

Pulverized coal-fired, dry-bottom, wall-fired unit equipped with electrostatic precipitator and low NO_x burners

Number two fuel oil used for startup and flame stabilization

Maximum continuous rating: 2,089 mmBtu/hr

Construction commenced: 1969 (The electrostatic precipitator was installed in 1971, and it was rebuilt in 1989. The Low-NO_x burner was installed in 1994.)

APPLICABLE REGULATIONS:

401 KAR 61:015, *Existing Indirect Heat Exchangers*, applies to existing indirect heat exchangers with a capacity more than 250 mmBtu per hour and commenced before August 17, 1971.

401 KAR 52:060, Acid Rain Permits, incorporating by reference 40 CFR Parts 72 to 78, Federal Acid Rain provisions.

401 KAR 51:160, NO_x Requirements for Large Utility and Industrial Boilers, incorporating by reference 40 CFR 96.

40 CFR Part 75, Continuous Emissions Monitoring (CEM).

40 CFR 64, *Compliance Assurance Monitoring* (CAM) for particulate matter.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to 401 KAR 61:015, Section 4 (1), particulate emissions shall not exceed 0.23 lb/mmBtu based on a three-hour average.

b) Pursuant to 401 KAR 61:015, Section 4 (3), emissions shall not exceed 40 percent opacity with respect to particulate matter based on a six-minute average except:

- (1) That, for cyclone or pulverized fired indirect heat exchangers, a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
- (2) For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

c) Pursuant to 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 3.3 lb/mmBtu based on a twenty-four-hour average.

Compliance Demonstration Method:

To provide assurance that the particulate and sulfur dioxide emission limits and the visible emission limitations are being met the permittee shall comply with the **4. Specific Monitoring Requirements** below.

3. Testing Requirements:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- a) Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. There may be short-term exceedances during testing period required to establish the opacity level. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. In accordance with **4.b Specific Monitoring Requirements**, the permittee shall submit a schedule within six months from the date of issuance of this permit to conduct testing within one year following the issuance of this permit to establish the correlation between opacity and particulate emissions.
- b) If no additional stack tests are performed pursuant to **4.b Specific Monitoring Requirements**, the permittee shall conduct a performance test for particulate emissions by the start of the fourth year of this permit to demonstrate compliance with the applicable standard.
- c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 weekly, or more frequently if requested by the Division.

4. Specific Monitoring Requirements:

- a) Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate:
 - (1) Perform an inspection of the control equipment and make any necessary repairs based on the concurrent readout from the COM, or;
 - (2) Determine opacity using Reference Method 9 if emissions are visible, inspect the COM and/or the control equipment, and make any necessary repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 61:005, Section 3(6), to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed on October 13, 2005, opacity shall be used as an indicator of particulate matter emissions. Pursuant to 40 CFR Part 64.4(c)(1), testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level. Excluding exempted time periods:
 - (1) If any six-minute average opacity (averaged over a period of three hours) value exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.
 - (2) If five (5) percent or greater of COM data (data averaged over six-minute periods) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by **Section G(a)(17)** of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.
- c) Pursuant to 401 KAR 61:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A, and 401 KAR 52:020, Section 10, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxide, sulfur dioxide and either oxygen or carbon dioxide emissions. Excluding exempted time periods, if any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.
- d) Pursuant to 401 KAR 61:015, Section 6(1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.
- e) Pursuant to 401 KAR 61:015, Section 6(3) the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.
- f) Pursuant to 401 KAR 61:005, Section 3(5), the Division may provide a temporary

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

- g) The permittee shall monitor the time between ignition and the time steady state operation of emission unit #2 is achieved.

5. Specific Record Keeping Requirements:

- a) In accordance with 401 KAR 61:005, Section 3(16)(f) and 61:015, Section 6, the owner or operator shall maintain a file of all information reported in the quarterly summaries, with the exception that records shall be maintained for a period of five (5) years.
- b) The permittee shall maintain records of:
 - (1) Each fuel analysis;
 - (2) The rate of fuel burned for each fuel type, on a daily basis;
 - (3) The heating value and ash content on a weekly basis;
 - (4) The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
 - (5) When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
 - (6) Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
 - (7) Results of all compliance tests; and
 - (8) Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level.
- c) The permittee shall record the voltage and amperage readings of the precipitator transformer/rectifier sets, once per shift. If the voltage and amperage readings are outside of normal range then corrective action shall be initiated, taking into account current operating conditions, type of fuel, severity of the situation, and system requirement for the unit. Records of voltage and amperage readings shall be maintained with long-term operational records for a period of five (5) years.
- d) The permittee shall keep visible observation records and Method 9 observations in a designated logbook. Records shall be maintained for five (5) years.
- e) The permittee shall record the time of ignition; the time steady state operation of emission unit #2 is achieved, and shall calculate and record the elapsed time between the two.

6. Specific Reporting Requirements:

- a) Pursuant to 401 KAR 61:005, Section 3 (16), minimum data requirements which

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

follow shall be maintained and furnished in the format specified by the Division.

- (1) Owners or operators of facilities required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.
 - (2) For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format only.
 - (3) For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic format only.
 - (4) The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
- b) The permittee shall report the number of excursions (excluding exempted time periods) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter.
- c) In the event of start-up, the permittee shall report:
- (1) The type of start-up (cold, warm, or hot);
 - (2) The reason why the start-up was determined to be cold, warm, or hot (or the conditions that dictated a cold, warm, or hot start-up);
 - (3) The elapsed time of (or duration of) the start-up;
 - (4) The manufacturer's recommended duration for that type of start-up or alternatively, typical, historical durations for that type of start-up based upon good engineering practices; and
 - (5) Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

- a) The electrostatic precipitator shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or good operating practices.
- b) Records regarding the maintenance of the electrostatic precipitator shall be maintained.
- c) See **Section E - Control Equipment Conditions** for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 03 - Coal Handling Operations

Description:

03(03) - Truck and railcar unloading, receiving hoppers (two), coal conveyers/transfer points (five), reclaim hoppers, crusher (one), coal stacker, coal stockpile, and yard area

03(04) - Haul roads

Operating rate: 600 tons/hr

Construction commenced: Prior to 1970

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

- a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - (1) Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
 - (2) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - (3) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - (4) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - (5) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - (6) The maintenance of paved roadways in a clean condition;
 - (7) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor the amount of coal and limestone received and processed through each piece of conveying or handling equipment, including stockpiles, on a weekly basis. Visible emissions from each piece of equipment or operation described for this item or group shall be monitored daily during daylight hours to determine whether conditions appear to be normal or abnormal.

5. Specific Record Keeping Requirements:

The permittee shall maintain records of the amount of coal and limestone received and processed through each piece of conveying or handling equipment, including stockpiles, on a weekly basis.

6. Specific Reporting Requirements:

See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**, for further requirements.

7. Specific Control Equipment Operating Conditions:

- a) The control equipment (including but not limited to hoods, enclosures, drop chute, water truck, sweeper, and water spray system) shall be operated as necessary to maintain compliance with the **1. Operating Limitations** in accordance with manufacturer's specifications and/or standard engineering practices.
- b) Records regarding the maintenance of the control equipment shall be maintained.
- c) See **Section E - Control Equipment Conditions** for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 05 (05) Two Fly Ash Silos A and B (Pneumatic Loading)

Description:

Maximum operating rate: 31 tons/hr, each.

Construction commenced: 1993

Control Equipment- fabric filter baghouse for each silo

APPLICABLE REGULATIONS:

401 KAR 59:010, *New Process Operation*, is applicable to emission units commenced on or after July 2, 1975.

40 CFR 64, *Compliance Assurance Monitoring* for particulate matter from each silo.

1. Operating Limitations:

None

2. Emission Limitations:

- a) Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air from each silo shall not exceed 29.99 lbs/hour based on a three-hour average.
- b) Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions from any stack shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

Compliance Demonstration Method

- a) The permittee may assure compliance with the particulate standard by calculating emissions using the following formula:

PM emissions (pounds per hour) = (monthly material throughput in tons/month)(1 month/hours of operation that month)(emission factor of 0.27 lb PM/ton)(1-control efficiency of 0.999).

- b) See **4. Specific Monitoring Requirements** for monitoring rates and visual inspection of controls.

3. Testing Requirements:

The permittee shall determine the opacity of emissions from each silo while being loaded by EPA Reference Method 9 weekly, or as required, or if requested by the Division.

4. Specific Monitoring Requirements:

- a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each silo, while the silos are being loaded, on a weekly basis and maintain a log of the observations. If emissions from any stack are seen, the permittee shall determine opacity using EPA Reference Method 9 and initiate an inspection of the control equipment for any necessary repairs.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) The permittee shall monitor the processing rate and hours of operation on a monthly basis.
- c) Pursuant to 40 CFR 64, the permittee shall comply with the requirements specified in Table 1 below to monitor emissions of particulate matter:

Table 1: Particulate Matter CAM Approach for Emission Unit 05 - Two Fly Ash Silos

<i>Applicable CAM Requirement</i>	<i>PM Limit</i>
General Requirements	$17.31 (P)^{0.16}$ lb/hr (3 hour avg.; P = process rate) = 29.99 lb/hr each silo (maximum) Filterable Particulates 20 % opacity (6 minute average)
Monitoring Methods and Location	(1) Visual observation weekly for opacity from each silo while the silo is being is loaded. (2) Method 9 weekly (each silo). (3) Monitor processing rate and hours of operation on a monthly basis. (4) Record pressure drop across the baghouse.
Indicator Range/Corrective Action	(1) If visual observations indicate opacity above the acceptable standard, then opacity will be determined by Reference Method 9. (2) If Method 9 opacity readings are over 20%, then silo loading will cease and any needed maintenance/repairs will be performed on the baghouse based upon the manufacturer's recommendations. (3) If the pressure drop across the baghouse is above or below the manufacturers recommended range, then silo loading will cease and any needed maintenance/repairs will be performed on the baghouse based upon the manufacturer's recommendations.
Data Collection Frequency	(1) Visual observation (weekly). (2) Method 9 weekly or as needed based upon visual observation. (3) Processing rate and hours of operation shall be recorded on a monthly basis. (4) Record the pressure drop across the baghouse once per shift, when the silos are being loaded.
Averaging Period	(1) Method 9 (6 minute average)
Recordkeeping	(1) Visible observations records and method 9 observations. (2) Process rate and hours of operation. (3) Baghouse pressure drop. (4) Monitoring and control device maintenance records and any corrective actions. (5) All specified records shall be a maintained in a designated logbook for a minimum of 5 years.
QA/QC	(1) Records of Method 9 certifications will be maintained. (2) Records of monometer certifications will be maintained.

5. Specific Record Keeping Requirements:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- a) Records of the weekly ash processed and weekly hours of operation shall be maintained for five years.
- b) Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall maintain the records specified in **4.c Specific Monitoring Requirements, Table 1** above.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F - Monitoring, Recordkeeping, and Reporting Requirements

7. Specific Control Equipment Operating Conditions:

- a) The baghouses shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and / or standard operating practices.
- b) Records regarding the maintenance of the baghouses shall be maintained.
- c) See Section E - Control Equipment Conditions for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 07 (07) Coal Crushing Facility (Run of Mine Coal Handling Facility)

Description:

Equipment includes: A & T Model 425 Feeder, Crusher Feeder Conveyor, Jeffrey Model 59FT Flextooth Crusher, Crushed Coal Conveyor and Discharge Chute.

Operating rate: 400 tons per hour

Construction commenced: December, 1998

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 3, *Standards of Performance for Coal Preparation Plants*, incorporating by reference 40 CFR 60 Subpart Y for emissions units commenced after October 24, 1974. The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 181 Mg (200 tons) per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems.

1. **Operating Limitations:**

None

2. **Emission Limitations:**

Pursuant to 401 KAR 60:005, Section 3 and 40 CFR 60.252, the owner or operator subject to the provisions of this regulation shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

3. **Testing Requirements:**

Pursuant to 40 CFR 60.254, EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity at least annually, or more frequently if requested by the Division.

4. **Specific Monitoring Requirements:**

The permittee shall perform a qualitative visual observation of the opacity of emissions from each emissions unit on a weekly basis and maintain a log of the observations. If visible, emissions from any stack are seen, the permittee shall determine the opacity of emissions using EPA Reference Method 9 and initiate an inspection of the control equipment making any necessary repairs.

5. **Specific Record Keeping Requirements:**

Records of the coal processed shall be maintained for emissions inventory purposes.

6. **Specific Reporting Requirements:**

See **Section G - General Provisions**, for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 08 (08) Emergency Diesel Generator

Description:

This generator is a CAT 3516, No. 2 diesel fuel oil-fired internal combustion engine.

Fuel: No. 2 Diesel Fuel Oil

Maximum Continuous Rating: 12.18 mmBtu/hr

Construction commenced: 2003

APPLICABLE REGULATIONS:

401 KAR 52:020, *Title V Permits*

40 CFR 63.6645(d), Initial Notification requirements for the *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, Subpart ZZZZ.

1. Operating Limitations:

The maximum operating time for this generator shall not exceed 500 hours in any consecutive twelve (12) month period.

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

- a) The permittee shall monitor the amount of fuel used at the generator on a monthly basis.
- b) The permittee shall monitor the hours of operation for the generator on a monthly basis.

5. Specific Record Keeping Requirements:

- a) The permittee shall maintain records of the amount of fuel oil usage (gallons) for the generator on a monthly and consecutive twelve (12) month basis.
- b) The permittee shall maintain records of the hours of operation of the generator on a monthly and consecutive twelve (12) month basis.

6. Specific Reporting Requirements:

- a) The permittee shall submit an Initial Notification in accordance with 40 CFR 63.6590(b). The notification should include the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements because it is operates exclusively as an emergency stationary RICE.
- b) See **Section F - Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and qualitative visible emission evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and any conservative actions taken for any abnormal visible emissions.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Storage vessels containing petroleum or organic liquids with a capacity of less than 10,567 gallons, providing (a) the vapor pressure of the stored liquid is less than 1.5 psia at storage temperature, or (b) vessels greater than 580 gallons with stored liquids having greater than 1.5 psia vapor pressure are equipped with a permanent submerged fill pipe.	NA
2. Storage vessels containing inorganic aqueous liquids, except inorganic acids with boiling points below the maximum storage temperature at atmospheric pressure.	401 KAR 61:015
3. #2 oil-fired space heaters or ovens rated at less than two million BTU per hour actual heat input, provided the maximum sulfur content is less than 0.5% by weight.	NA
4. Machining of metals, providing total solvent usage at the source for this activity does not exceed 60 gallons per month.	NA
5. Internal combustion engines using only gasoline, diesel fuel, natural gas, or LP gas rated at 50 hp or less.	NA
6. Volatile organic compound and hazardous air pollutant storage containers, as follows: (a) Tanks, less than 1,000 gallons, and throughput less than 12,000 gallons per year; (b) Lubricating oils, hydraulic oils, machining oils, and machining fluids.	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

<u>Description</u>		
7.	Machining where an aqueous cutting coolant continuously floods machining interface.	NA
8.	Degreasing operations, using less than 145 gallons per year.	NA
9.	Maintenance equipment, not emitting HAPs: brazing, cutting torches, soldering, welding.	NA
10.	Underground conveyors.	401 KAR 63:010
11.	Coal bunker and coal scale exhausts.	401 KAR 63:010
12.	Blowdown (sight glass, boiler, compressor, pump, cooling tower)	NA
13.	On-site fire and emergency response training.	NA
14.	Stationary fire pumps.	401 KAR 63:010
15.	Grinding and machining operations vented through fabric filters, scrubbers, mist eliminators, or electrostatic precipitators (e.g., deburring, buffing, polishing, abrasive blasting, pneumatic conveying, woodworking)	401 KAR 63:010
16.	Vents from ash transport systems not operated at positive pressure.	NA
17.	Wastewater treatment (for stream less than 1% oil and grease).	NA
18.	Sanitary sewage treatment	NA
19.	Heat exchanger cleaning and repair	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

	<u>Description</u>	<u>Generally Applicable Regulation</u>
20.	Equipment used exclusively for forging, pressing, drawing, stamping, spinning, or extruding metals. This does not include emissions due to quenching activities.	NA
21.	Repair and maintenance of ESP, fabric filters, etc.	NA
22.	Ash handling, ash pond and ash pond maintenance	401 KAR 63:010
23.	Laboratory fume hoods and vents used exclusively for chemical or physical analysis, or for “bench scale production” R&D facilities	NA
24.	Covered conveyors for coal or coke that convey less than 200 tons per day	401 KAR 63:010
25.	06(06) - Fly ash loadout systems (Silos A & B) configured for either railcar or truck (enclosed)	401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- (1) As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
- (2) Particulate, sulfur dioxide, and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

SECTION E - CONTROL EQUIPMENT CONDITIONS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice as well as in accordance with manufacturer's specifications for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6 [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

**SECTION F - MONITORING, RECORDKEEPING, AND REPORTING
REQUIREMENTS (CONTINUED)**

Division for Air Quality
London Regional Office
875 South Main Street
London, KY 40741-9008

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - d. If any additional applicable requirements of the Acid Rain Program become applicable to the source.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

SECTION G - GENERAL PROVISIONS (CONTINUED)

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - a. Applicable requirements that are included and specifically identified in the permit and
 - b. Non-applicable requirements expressly identified in this permit.
17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

SECTION G - GENERAL PROVISIONS (CONTINUED)(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

None

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
2. The permittee shall comply with all requirements and conditions of the Title V Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit;

SECTION G - GENERAL PROVISIONS (CONTINUED)

- d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken;
 - e. This requirement does not relieve the source of other local, state or federal notification requirements.
- 2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
 - 3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

- 1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

- 2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

- 1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- 2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J – ACID RAIN PERMIT

TITLE IV PHASE II ACID RAIN

ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application and the Phase II NO_x Compliance Plan.
- 5) Summary of Actions

< Statement of Basis:

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to Regulations 401 KAR 52:020, Title V Permits, 401 KAR 52:060, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

SECTION J – ACID RAIN PERMIT (CONTINUED)

Plant Name: John S. Cooper Station
Affected Unit: 1

< **SO₂ Allowance Allocations and NO_x Requirements for the affected unit:**

SO ₂ Allowances	Year				
	2006	2007	2008	2009	2010
Tables 2, 3 or 4 of 40 CFR Part 73	3,209*	3,209*	3,209*	3,209*	3,216*

NO _x Requirements	
NO_x Limits	<p>Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves a NO_x standard emissions limitation compliance plan for unit 1. The NO_x compliance plan is effective from January 1, 2006 through December 31, 2010. Under the NO_x compliance plan, annual average NO_x emission rate for each year, determined in accordance with 40 CFR Part 76, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2), of 0.50 lb/mmBtu for dry bottom wall-fired boilers.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

SECTION J – ACID RAIN PERMIT (CONTINUED)

Plant Name: John S. Cooper Station
Affected Unit: 2

< **SO₂ Allowance Allocations and NO_x Requirements for the affected unit:**

SO ₂ Allowances	Year				
	2006	2007	2008	2009	2010
Tables 2, 3 or 4 of 40 CFR Part 73	6,606*	6,606*	6,606*	6,606*	6,619*

NO _x Requirements	
NO_x Limits	<p>Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves a NO_x standard emissions limitation compliance plan for unit 2. The NO_x compliance plan is effective from January 1, 2006 through December 31, 2010. Under the NO_x compliance plan, annual average NO_x emission rate for each year, determined in accordance with 40 CFR Part 76, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2), of 0.50 lb/mmBtu for dry bottom wall-fired boilers.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

SECTION J – ACID RAIN PERMIT (CONTINUED)

< **Comments, Notes, and Justifications:**

Affected units are two (2) dry bottom wall-fired boilers.

< **Permit Application:**

The Phase II Permit Application and the Phase II NO_x Compliance Plan are both part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application and the Phase II NO_x Compliance Plan.

< **Summary of Actions:**

Previous Actions:

1. Draft Phase II Permit (# AR-96-19) including SO₂ compliance was issued for public comments on October 16, 1996.
2. Final Phase II Permit (# AR-96-19) including SO₂ compliance plan was issued on February 2, 1997.
3. Draft Phase II Permit (# A-98-011) was issued with the 1998 revised SO₂ allowance allocations and NO_x emissions standard for public comment on December 8, 1998.
4. Final Phase II Permit (# AR-96-012) including SO₂ compliance plan was issued on March 5, 1999.
5. Initial Title V Operating Permit (# V-97-044) was issued on November 12, 1999 and expired November 12, 2004.

Present Action:

1. Final Phase II Permit is issued with the Title V Operating Permit (V-05-082) renewal.
2. Phase II permit (# AR-96-012) is hereby null and void.

SECTION K – NO_x BUDGET PERMIT

NO_x BUDGET PERMIT CONTENTS

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Environmental and Public Protection Cabinet issues this permit pursuant to 401 KAR 52:020 Title V permits, 401 KAR 51:160, NO_x requirements for large utility and industrial boilers, and 40 CFR 97, Subpart C.

2) NO_x Budget Permit Application, Form DEP 7007EE

The NO_x Budget Permit application for these electrical generating units was submitted to the Division and received on September 15, 2003. Requirements contained in that application are hereby incorporated into and made part of this NO_x Budget Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3) Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

Affected units are one (1) pulverized coal-fired, dry-bottom, wall-fired boiler (Unit 1), with a maximum continuous rating of 1,080 mmBtu/hr; and one (1) pulverized coal-fired, dry-bottom, wall-fired boiler (Unit 2), with a maximum continuous rating of 2,089 mmBtu/hr. Each unit has a capacity to generate 25 megawatts or more of electricity, which is offered for sale. The units use coal as a fuel source, and are authorized as base load electric generating units.

4) Summary of Actions

The NO_x Budget Permit is being issued as part of this revised Title V permit for this source. Public, affected state, and U.S. EPA review will follow procedures specified in 401 KAR 52:100.